

Energy Requirement & Sector Development in Lao PDR

presented by

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Background of Lao PDR



- ⚡ Mountainous area with major tributaries of the Mekong River scattered from North to South flowing through the country territory (>35% of total Mekong River basin inflow)
- ⚡ Relatively high annual precipitation and monsoons from the Gulf of Thailand and the Gulf of Tonkin
- ⚡ Situated amongst neighboring countries where demand for electric power is steadily increasing
- ⚡ Experience in electric power exchange with neighboring countries with no difficulty for more than 30 years
- ⚡ Oil and gas under exploration .
- ⚡ Lignite deposit found and at initial stage of development.

Development Setting

- Memorandum of Understanding on the power exchange program was signed with the Royal Thai Government in 1993 and 1996 under which 3,000 MW is to be supplied to Thailand and subsequently increased 7,000 MW is agreed .
- In 1998 MOU for 3000MW was signed with the Government of Vietnam and subsequently 5000MW
- In 1999 Agreement on Cooperation in Power Sector was signed with Cambodia
- Power Sector Strategy developed and updated from time to time as to reflect demand inside the country and export to neighboring countries as per the G-to-G MOUs above.
- Power sector opened to private foreign direct investment to develop different projects for export and domestic supply

Power Sector Goals

- ⚡ Maintain and expand affordable, reliable and sustainable electricity supply to meet demand towards expanding industry and rural electrification program.
- ⚡ Tap the country's potentials aiming at promoting power generation for export to provide revenues to meet Government development objectives .
- ⚡ Develop and enhance the legal and regulatory framework to facilitate power sector development by either public or private parties
- ⚡ Ensure accountability and transparency of environmental and social impacts and thereby achieve sustainable development

Millennium Development Goals

⚡ Country electrification ratio

⚡ 2009 around 73%

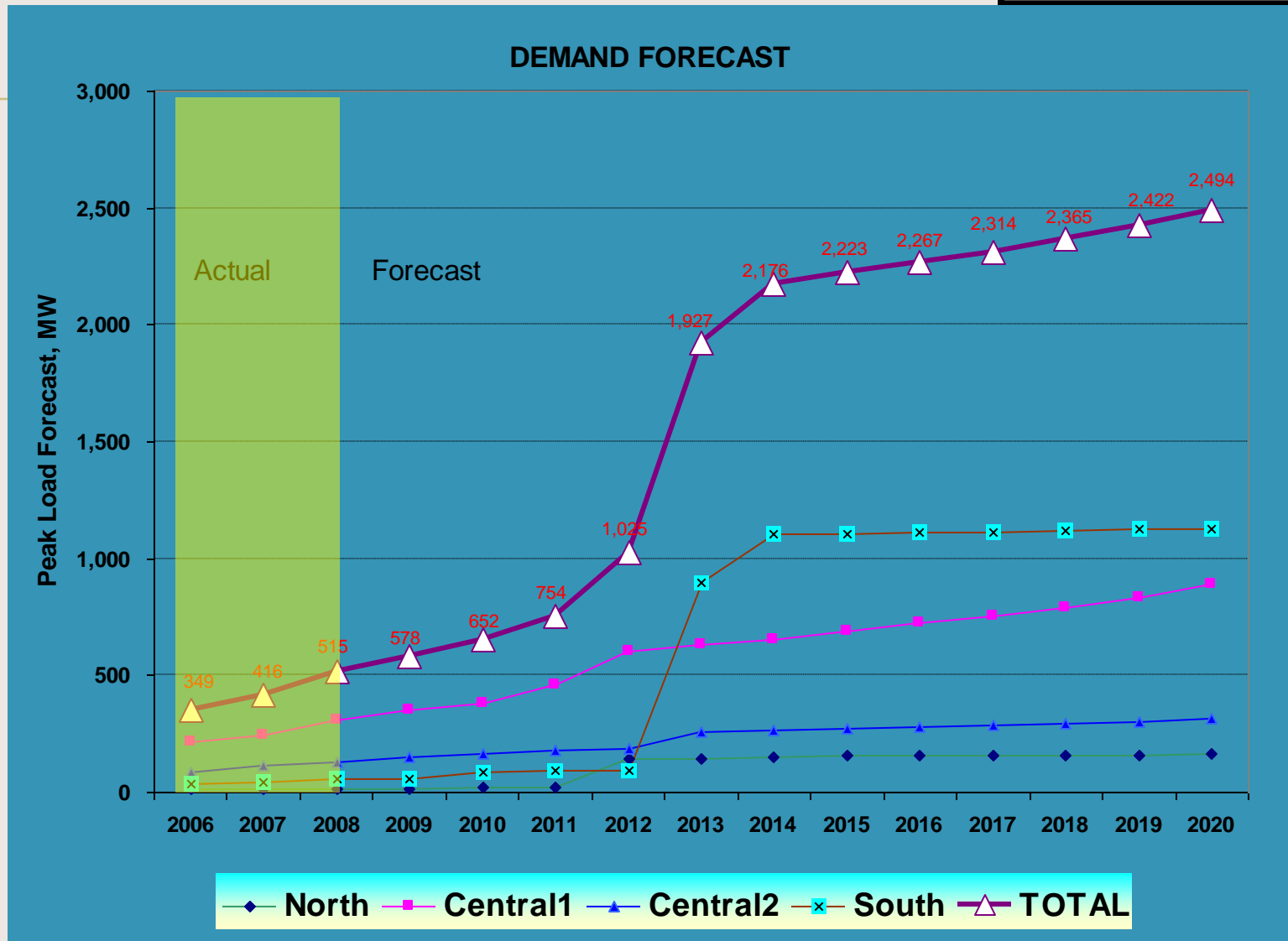
⚡ 2015 90%

⚡ 2020 >90%-100%

⚡ Emerging sector

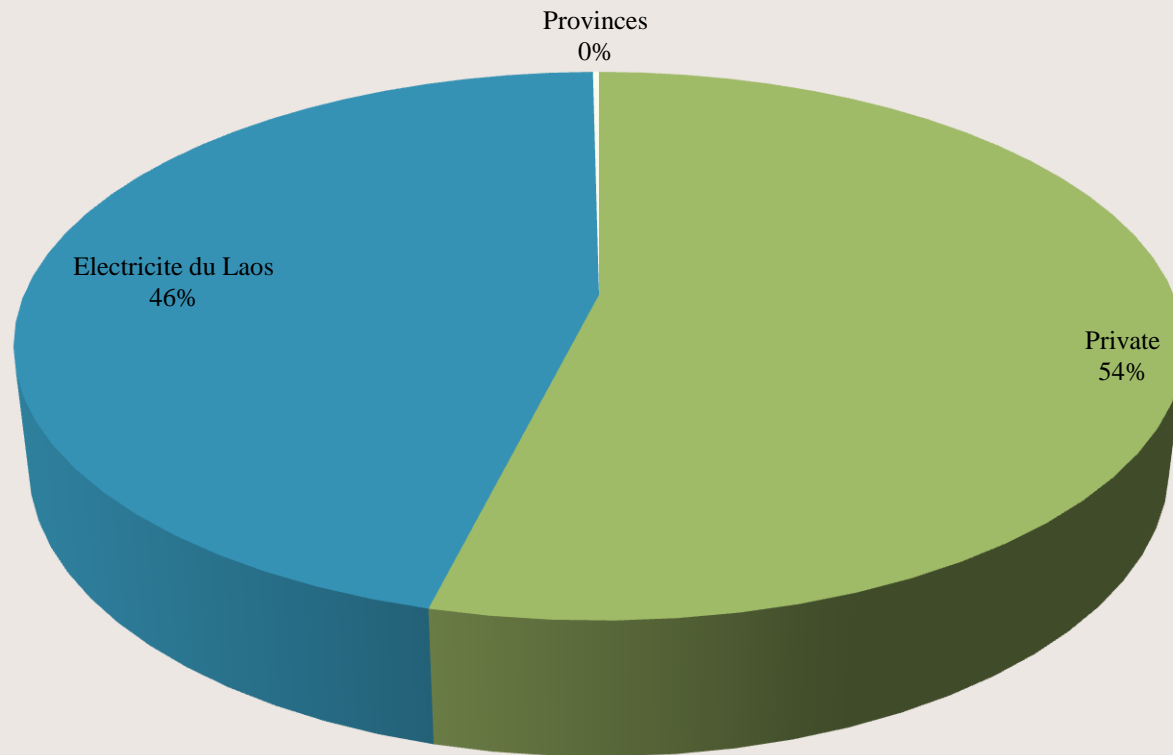
⚡ Mining and mineral processing

Demand Forecast for Domestic Supply as of 2009

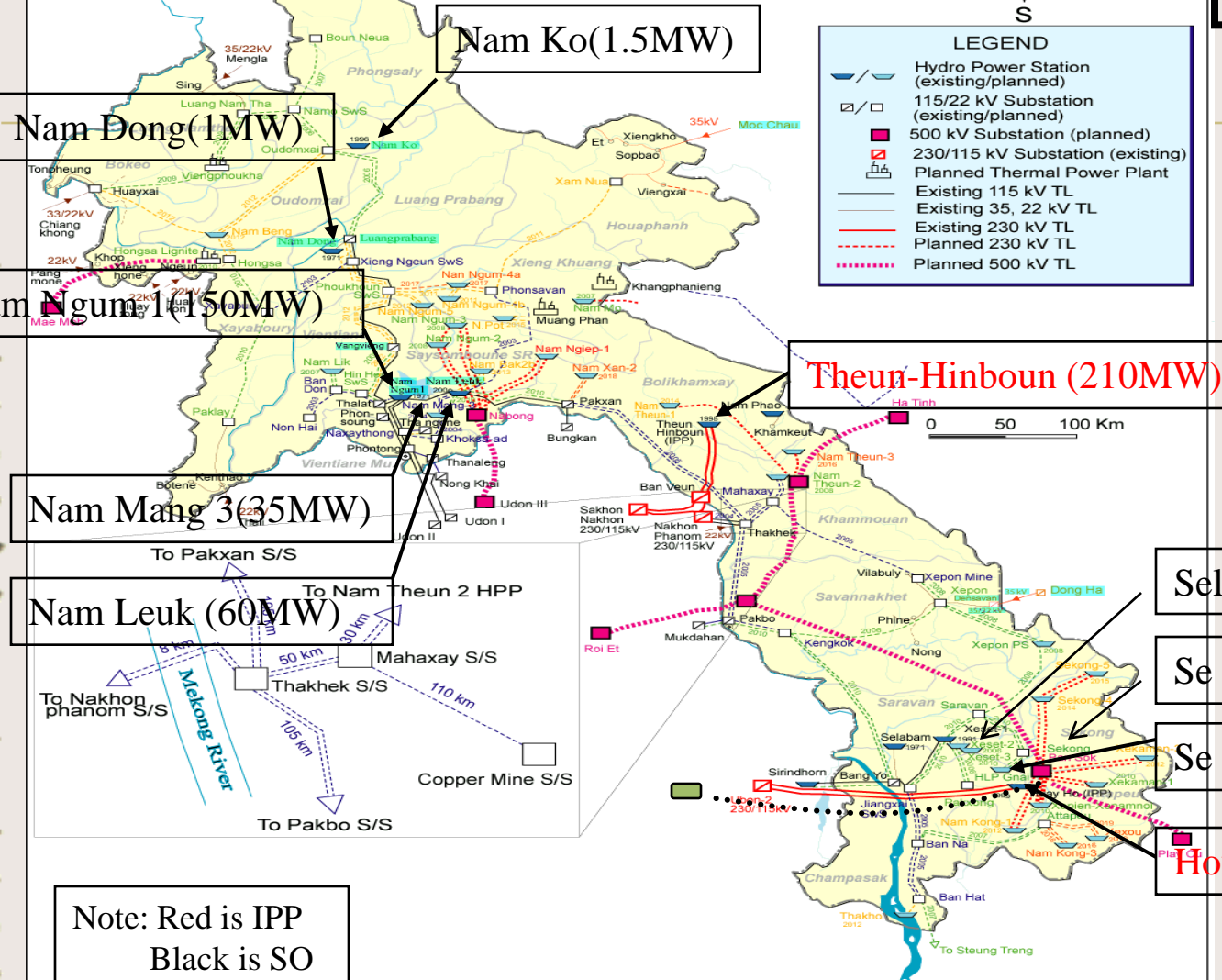


Sources of Generation

Electricity Shared by Generators



Power Plants in Operation as of 2009



As of May 14, 2009

Project Status Construction

Nam Nhone
(2.4MW)

Nam Ngum
5 (120MW)

Nam Lik 1,2
(100MW)

Theunsinboun
Expansion (280MW)

Nam Ngum 2 (615MW)

Xe Kaman 3 (250MW)

Sekaman 1
(468MW)

Note: Red is IPP
Black is SO

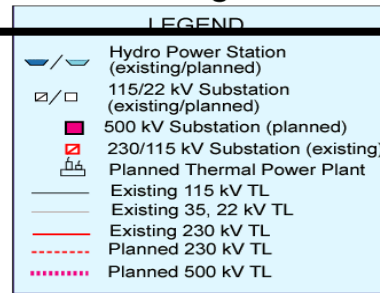
As of May 14, 2003



LONG-TERM POWER DEVELOPMENT PLAN IN LAO PDR

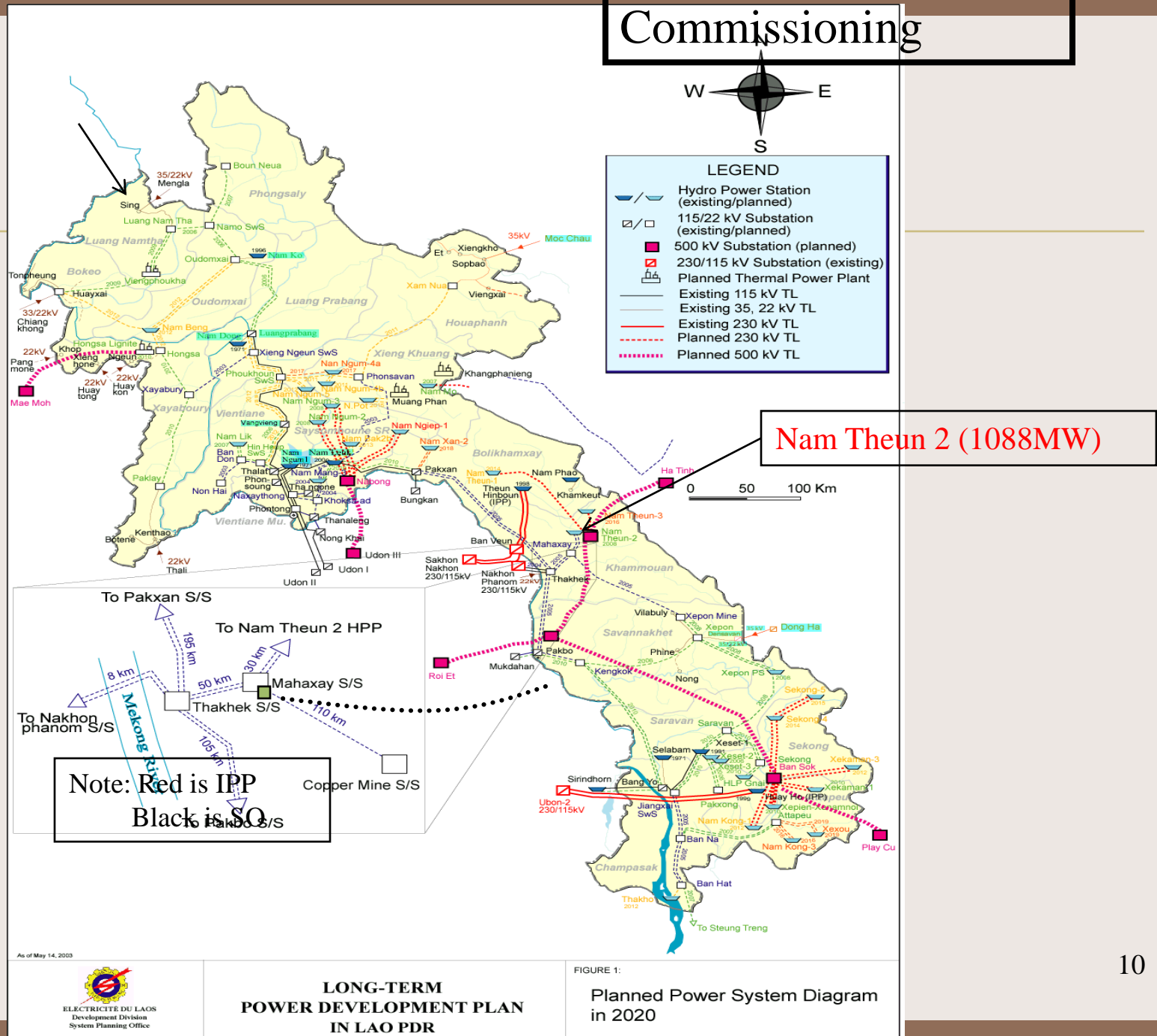
FIGURE 1:

Planned Power System Diagram
in 2020



0 50 100 Km

Commissioning



Selected Projects under Preparation for Thai Grid

Hongsa Thermal (1800MW)

Nam Ngum 3 (440MW)

Nam Ngiep 1(263MW)

Nam Theun 1 (520MW)

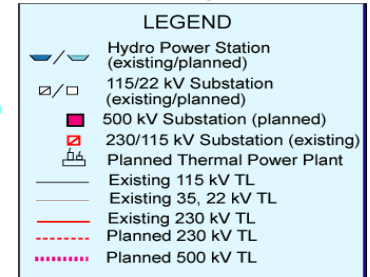
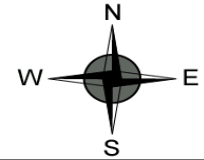
Sekong 4(300-600MW)

Sepian-Xenamnoi (390MW)

Nam Kong 1 (70-150MW)

Donsahong (250MW)

Nam Ou (1100MW)



Sekong 5(253MW)

Note: Red is IPP
Black is SO

As of May 14, 2009

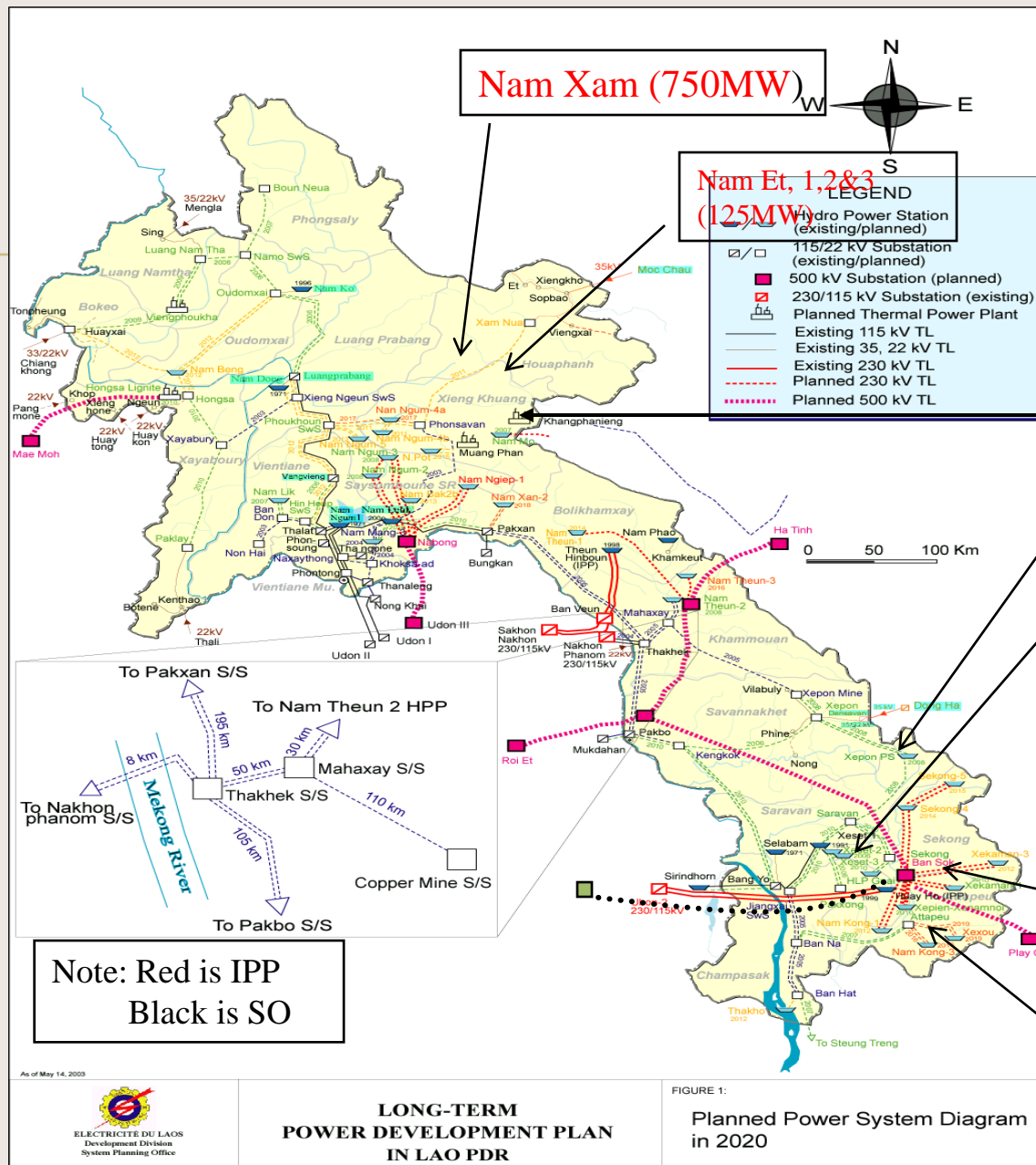


**LONG-TERM
POWER DEVELOPMENT PLAN
IN LAO PDR**

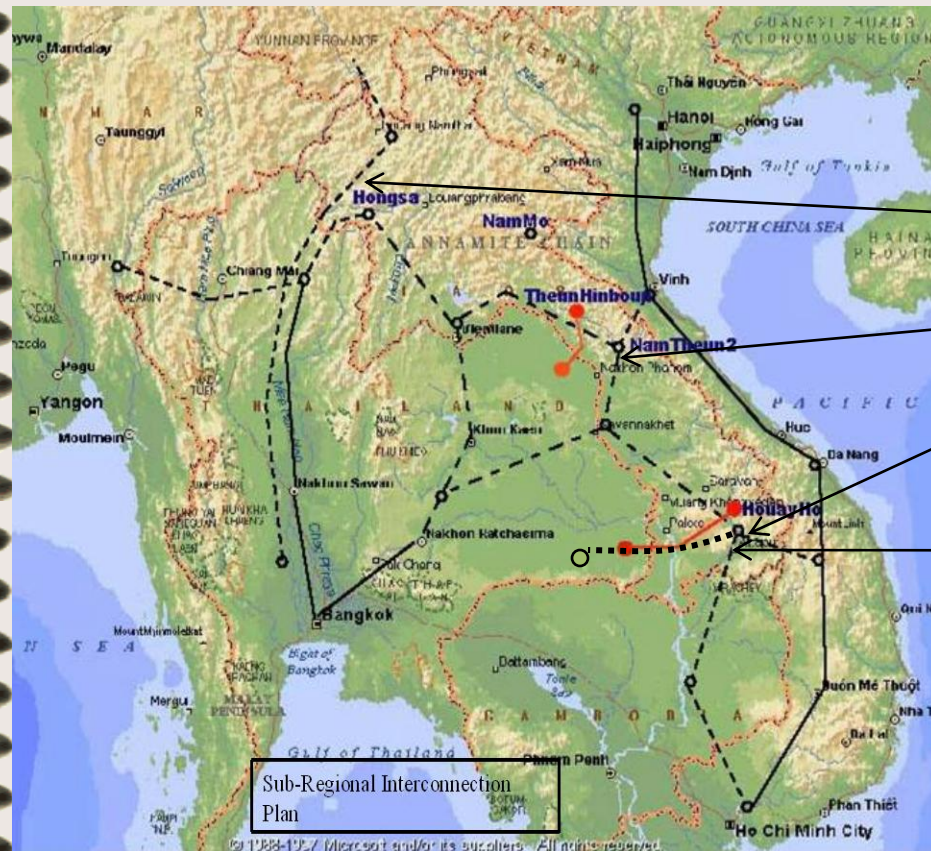
FIGURE 1:

Planned Power System Diagram in 2020

Selected Projects under Preparation for Vietnamese Grid



Long Term Development of Sub-Regional Interconnection



500kv Transmission Line Facilities

- ⚡ (Jinghong) China-(Luang Namtha) Laos-Thailand
- ⚡ (Hating) Vietnam-Nam Theun 2 (Laos)-Thailand
- ⚡ (Pleiku) Vietnam-Ban Sok /Attapeu (Laos)-Thailand
- ⚡ (Tay Ninh province) Vietnam-(Strung Treng) Cambodia-(Attapeu) Laos-(Ubon Rat) Thailand



More information available on
www.poweringprogress.org

THANK YOU VERY MUCH
FOR YOUR ATTENTION